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(54) Title: SYSTEM AND METHOD FOR OPTIMIZED UTILIZATION OF CODE RESOURCE IN COMMUNICATION NETWORKS
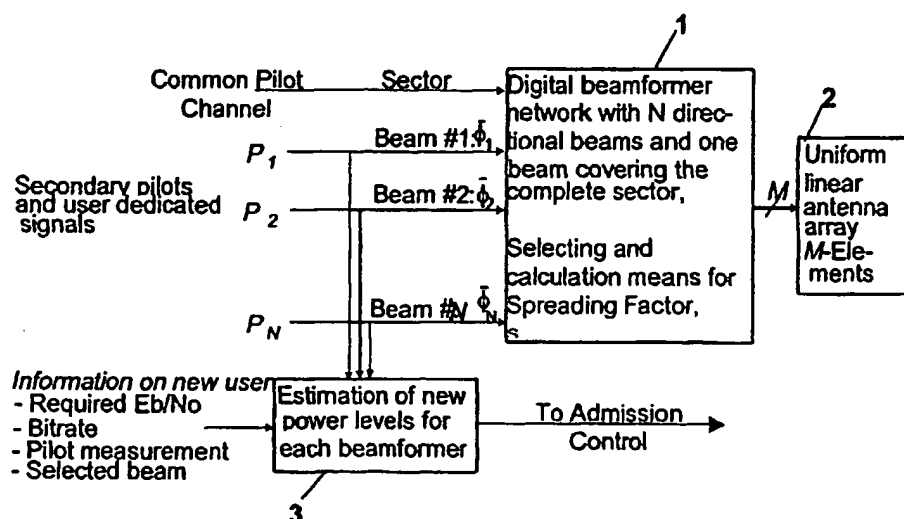
(57) Abstract: The invention provides a method, system and network element for providing enhanced utilization of code resource in a cellular systems, preferably a terrestrial cellular CDMA systems, wherein a base station comprises an antenna system which generates several beams A spreading factor (SF) of the root channelization code sets an upper limit on the maximum bit rate. The spreading factor of the root channelization code is selected according to the set of minimum spreading factors assumed for the different beams. Packet scheduling for parallel beams is provided in such a manner that not all beams transmit on downlink, e.g. PDSCH, with high or maximum bit rates (low Spreading Factor) simultaneously. The packet scheduling in the individual beams is coordinated so that only one of the beams is transmitting with a high bit rate during the same time period. Different scheduling slots are balanced so they require nearly the same amount of code resources.

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